

Infographics

William L. Allen, University of Oxford; Nuffield College, william.allen@politics.ox.ac.uk

Eedan R. Amit-Danhi, University of Groningen, e.r.amit-danhi@rug.nl

Abstract: *Infographics—or visuals designed to convey information efficiently, coherently, and comprehensibly—are important ways by which different actors communicate to achieve their objectives. This entry introduces the main conceptual, theoretical, and empirical avenues of research on infographics in political domains, with particular emphasis on issues arising from their use in digital contexts. First, we locate infographics within the larger field of visual political communication, and then distinguish them from the related mode of data visualization. Then, we identify major lines of research into the forms, production, consumption, political impacts, circulation patterns, and veracity of infographics. Finally, we highlight how questions of power run through political examinations of infographics, and illustrate this with reference to the domains of categorization, elections and campaigning, policymaking, and social movements.*

Keywords: *Data politics; Infographics; Visual communication; Visualization*

Acknowledgements: William L. Allen acknowledges support from the British Academy (grant number PF21\210066). Eedan R. Amit-Danhi acknowledges support from the Israeli Science Foundation's Social Science Postdoctoral Fellowship.

Accepted version of a manuscript to be published as:

Allen, William L. and Eedan R. Amit-Danhi (Forthcoming). 'Infographics', in A. Nai, M. Grömping, and D. Wirz (eds.), *Encyclopedia of Political Communication*. Cheltenham: Edward Elgar

Visual communication has been central to conveying information across many areas including science, advertising, journalism, and government. In political domains, this information takes several forms such as data produced or held by states, political parties, and voters; policies or laws, either in-place or proposed; and media content and metadata about its messengers. The political objectives of these visual forms of communication are similarly varied, and may be achieved in ways that are distinct from text-based forms traditionally studied by political scientists and communications scholars. Visuals convey knowledge, persuade, entertain, and motivate action taken either individually such as through voting, signing petitions, or making donations, or collectively as in joining social movements. Visuals can be central to candidate messaging, national identity, and political movements' strategies because they signify and connote a rich array of meanings that extend beyond a name or slogan to evoke and enlist cultural, national, and societal resources. In this entry, we highlight an important visual in political life: infographics. We define this communicative form, outline its main uses, and conclude by outlining its wider political implications.

Infographics Versus Data Visualizations

The term “infographic” refers to information graphics or information visuals. Commonly conceived as a visual designed to convey information in an efficient, coherent, and comprehensible manner, an infographic is distinct from the related term “data visualization” which is the “visual representation and presentation of data to facilitate understanding” (Kirk 2019, 15). While data visualizations traditionally convey primarily numerical data, an infographic “may contain no numeric data, or it presents data in charts alongside other illustrations, like photographs or drawings” (Engebretsen and Kennedy 2020, 22).

Infographics can be more visually complex, potentially more emotive, and less reliant on numbers than data visualizations.

While the growth and popularity of both forms indicates their communicative and cultural power, their origins are certainly not contemporary. Two notable examples are Charles Joseph Minard's 1869 “figurative map” of the decline of Napoleon's army as it invaded Russia, which combined textual, numeric, spatial, and temporal information into a single visualization (Tufte, 1985); and Florence Nightingale's 19th century diagram of the causes of military mortality in the Eastern Front, presented to the British Parliament to raise awareness of the dire health issues that confronted troops (Kopf, 1916). Although these examples

demonstrate the longer-standing importance of infographics, their usage in political contexts has particularly grown with the popularization of digital and social media.

Political Infographics in the Digital World

Several lines of scholarship explore different elements of digital political infographics. One avenue focuses on the *rhetorical features* within infographics. Identifying recurring patterns and techniques of representation that convey shared meanings, sometimes called “conventions” (Kennedy et al. 2016), provides a way of linking graphics with their social, political, and cultural contexts. Several typologies for categorizing these features already exist (e.g., Stalph and Heravi 2023), though researchers are well-advised to consider the extent to which these need to be adapted to suit a particular analytical goal.

Research also extends beyond the visuals themselves. First, there is interest in understanding the *production* of infographics by focusing on those who create infographics. Designers (Kennedy et al. 2016), journalists (Lowrey and Hou 2021), and politicians (Amit-Danhi and Shifman 2018) potentially influence the forms that graphics eventually take through activities of “visual brokerage” (Allen 2018). Paying attention to the people, processes, and practices involved in creating these visuals can help explain how commonly-accepted practices arise—and, crucially in political domains, how they can change.

Second, much research also considers the *consumption* of infographics, or how people make sense of these visuals, and their *consequences* for attitudes and behaviours. This work spans qualitative user studies and quantitative experimental work. Helen Kennedy and her team’s (2016) study among UK-based laypeople revealed a variety of definitions for “effective” visuals. It opened further exploration across pressing topics such as climate change.

Infographics also elicit emotional reactions among viewers (Kennedy and Hill 2018) that can lead to other outcomes, such as greater online engagement with political candidates who explicitly use emotions in their communications work (Amit-Danhi and Shifman 2022).

Third, another strand examines how these visual objects *circulate* online. This work is heavily informed by scholarship on content virality and the attributes of content that contribute to the speed and ways in which a given unit of content disperses. Circulation is crucial because the impact of visualizations and infographics largely depends on their exposure metrics (Kim, Painter and Dunton Miles, 2013). Yet the features of widely-

circulating political infographics appear to be different from other forms of viral content. The latter tends to circulate more when they have positive emotional valence, high emotional activation, participatory elements, and calls for action (Berger and Milkman 2012). By contrast, political infographics are more likely to display higher engagement (shares, likes, comments) when they contain simple visualizations and ethical source practices, or when candidates whom voters perceive to be authentic use visuals to convey emotions such as anger, fear, or awe (Amit-Danhi and Shifman, 2022).

Across these themes, it is important to consider the *veracity* of infographics as is the case for other communication forms. A productive line of research considers how visuals, including infographics, are vehicles for *misinformation*. For example, visuals can give misleading impressions of causality that do not actually exist in the underlying data (Xiong et al. 2020). More generally, bad-faith actors can use visuals to emphasize their claims, justify them using false information, or pretend to be another credible messenger—functions that have been identified in major crises including the COVID-19 pandemic (Brennen, Simon, and Nielsen 2021).

Political Implications

In all these areas, attending to the substantive political *contexts* in which infographics appear is crucial. This is because, like any communication form, visuals can be both the objects and sources of contestation among individuals as well as groups. On the one hand, addressing questions of *who* gets represented, *how*, and *in what circumstances* necessarily involves questions of power. For instance, decisions about which user engagement metrics are measured through which tools may either include or exclude participation by some sets of individuals. Moreover, since measurements are typically carried out by large organizations, these choices can reflect institutional interests and agendas: for example, defining gender as a binary variable effectively excludes millions of users, placing them outside “standard” measures. Therefore, any examination of political infographics must attend to the attributes of the data and datasets they convey—including data generating processes and analytical assumptions—since these have implications for the political power of visualizers as well as people involved in earlier stages of measurement design and data collection.

On the other hand, infographics and the information within them can be *generative* of political worlds, subjects, and rights (Allen 2020). This is what Bigo, Isin, and Ruppert

(2019) have called “data politics.” As infographics partly depend on underlying datasets, they necessarily serve as vectors for established actors to reinforce their own ways of seeing political and social phenomena in either intentional or unintentional ways—such as through the categories built into data collection and made available to users, as in national population censuses (Ruppert 2011).

Elections and campaigning are clear areas in which infographics potentially play important roles in shaping politics—either by changing voters’ behaviours and attitudes, or by making some issues, candidates, or parties more salient and attractive. For example, several studies explore how different ways of conveying uncertainty around forecasts of election results impact perceptions and voting decisions in the present (Gelman et al. 2020; Westwood, Messing, and Lelkes 2020).

Beyond the heat of campaigns, seemingly mundane activities of policymaking and governance are also good places in which to examine how infographics have political dimensions. While infographics can sometimes inform decision-making in some traditions of evidence-based policymaking, they also can be used to legitimize overtly political goals by invoking a sense of objectivity provided by numbers (Baele, Balzacq, and Bourbeau 2018). Infographics also function as “alignment devices” (Bandola-Gill, Grek, and Ronzani 2021) by convening attention around certain policy issues and identifying who is leading and lagging on meeting agreed goals.

Moving to politics originating elsewhere than elites, social movements and protests are other areas in which infographics can gather and express attention. Conveying key information to members and participants is crucial for raising awareness, sustaining interest, and mobilizing action for the cause. Some key illustrations of how this works come from efforts to track and report street harassment (Fileborn and Trott 2022) and human rights advocacy (Rall et al. 2016).

The infographic, as a way of conveying a range of information types to achieve multiple goals, has become a staple of politics occurring both on- and offline. As such, it is likely to remain a key resource at the disposal of actors in politics and policymaking. In response to this observation, scholarship on the forms and attributes of infographics, as well as their drivers and impacts, has proliferated. Going forward, future research should prioritize

understanding these artifacts across countries, platforms, and time periods—possibly by taking advantage of methodological developments that enhance researchers’ abilities to study visual content both in greater qualitative detail and at scale. Not only would this add important empirical richness to existing descriptions of this dynamic visual form, but also it would open avenues for developing better theories about how infographics relate to other political phenomena.

References

- Allen, W. (2018). Visual brokerage: Communicating data and research through visualisation. *Public Understanding of Science* 27(8): 906–922.
<https://doi.org/10.1177/0963662518756853>.
- Allen, W. (2020). ‘Mobility, Media, and Data Politics’. In K. Smets, K. Leurs, M. Georgiou, S. Witteborn, & R. Gajjala (Eds.), *The SAGE Handbook of Media and Migration* (pp.180–191). SAGE Publications Ltd.
- Amit-Danhi, E. R., & L. Shifman. (2018). Digital political infographics: A rhetorical palette of an emergent genre. *New Media & Society* 20(10): 3540–3559.
<https://doi.org/10.1177/1461444817750565>.
- Amit-Danhi, E. R., & Shifman, L. (2022). Off the charts: User engagement enhancers in election infographics. *Information, Communication & Society* 25(1), 55-73.
<https://doi.org/10.1080/1369118X.2020.1761858>.
- Baele, S. J., Balzacq, T., & Bourbeau, P. (2018). Numbers in global security governance. *European Journal of International Security* 3(1): 22–44.
<https://doi.org/10.1017/eis.2017.9>.
- Bandola-Gill, J., Grek, S., & Ronzani, M. (2021). Beyond winners and losers: Ranking visualizations as alignment devices in global public policy. *Research in the Sociology of Organizations* 74(2): 27–52.
- Berger, J., & Milkman, K. L. (2012). What makes online content viral? *Journal of Marketing Research* 49(2), 192–205. <https://doi.org/10.1509/jmr.10.0353>.
- Bigo, D., Isin, E., & Ruppert, E. (Eds.) (2019). *Data Politics: Worlds, Subjects, Rights*. Routledge.
- Brennen, J. S., Simon, F. M., & Nielsen, R. K. (2021). Beyond (mis)representation: Visuals in COVID-19 misinformation’. *The International Journal of Press/Politics* 26(1): 277–299. <https://doi.org/10.1177/1940161220964780>.
- Engelbrechtsen, M. & Kennedy, H. (Eds.) (2020). *Data Visualization in Society*. Amsterdam University Press.
- Fileborn, B. & Trott V. (2022). “It ain’t a compliment”: Feminist data visualisation and digital street harassment advocacy’. *Convergence* 28(1): 127–149.
<https://doi.org/10.1177/13548565211045536>.

- Gelman, A., Hullman, J., Wlezien, C., and Morris, G. E. (2020). Information, incentives, and goals in election forecasts. *Judgment and Decision Making* 15(5): 863–80. <https://doi.org/10.1017/S1930297500007981>.
- Hacking, I. (2006). Making up people. *London Review of Books* 28(16): 23–26.
- Kennedy, H. & Hill, R. L. (2018). The feeling of numbers: Emotions in everyday engagements with data and their visualisation?. *Sociology* 52(4): 830–848. <https://doi.org/10.1177/0038038516674675>.
- Kennedy, H., Hill, R. L., Aiello, G., and Allen, W. (2016) The work that visualisation conventions do. *Information, Communication & Society* 19(6): 715–35. <https://doi.org/10.1080/1369118X.2016.1153126>.
- Kim, J. Y., Painter, D. L., & Dunton Miles, M. A. (2013). Campaign agenda-building online: The effects of online information source and interactivity on affective evaluations and the salience of the election. *Journal of Information Technology & Politics* 10(3), 326–340. <https://doi.org/10.1080/19331681.2013.807757>
- Kirk, A. (2019). *Data Visualisation: A Handbook for Data Driven Design*. 2nd ed. SAGE.
- Kopf, E. W. (1916). Florence Nightingale as a statistician. *Publications of the American Statistical Association*.
- Rall, K., Satterthwaite, M. L., Pandey, A. V., Emerson, J., Boy, J., Nov, O., & Bertini, E.. (2016). Data visualization for human rights advocacy. *Journal of Human Rights Practice* 8(2): 171–97. <https://doi.org/10.1093/jhuman/huw011>.
- Ruppert, E. (2011). Population objects: Interpassive subjects. *Sociology* 45(2): 218–233. <https://doi.org/10.1177/0038038510394027>.
- Stalph, F. & Heravi, B. (2023). Exploring data visualisations: An analytical framework Based on dimensional components of data artefacts in journalism. *Digital Journalism* 11(9): 1641-1663. <https://doi.org/10.1080/21670811.2021.1957965>.
- Tufte, E. R. (1983). *The visual display of quantitative information*. 2nd ed. Graphics Press.
- Westwood, S. J., Messing, S., and Lelkes, Y. (2020). Projecting confidence: How the probabilistic horse race confuses and demobilizes the public?. *The Journal of Politics* 82(4): 1530–1544. <https://doi.org/10.1086/708682>.
- Xiong, C., Shapiro, J., Hullman, J., & Franconeri, S. (2020). Illusion of causality in visualized data. *IEEE Transactions on Visualization and Computer Graphics* 26(1): 853–862. <https://doi.org/10.1109/TVCG.2019.2934399>.